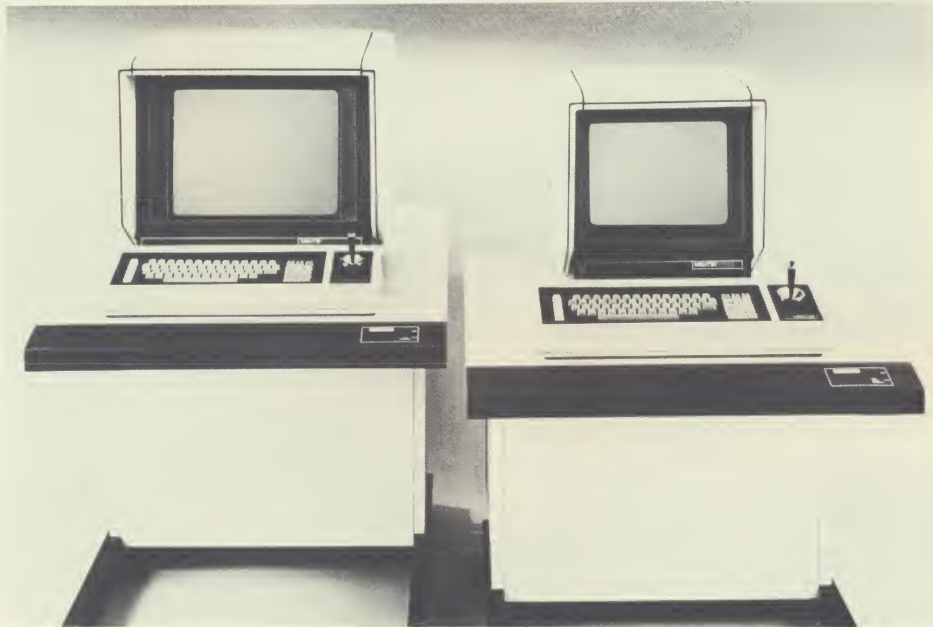




The WHIZZARD 6200 family includes the original 6250, right, with a 13-inch color monitor, and the 6240/45/55 models, left, which offer a choice of B&W or color 19-inch monitors.

Three New 6200 Members Shown

SAN DIEGO, CA — Megatek has introduced three new members of its WHIZZARD 6200 graphics workstation family, which is intended expressly for computer-aided design and manufacturing applications, bringing to four the number of low cost, high performance workstation offerings from the company.

The four members of the 6200 family are:

- the WHIZZARD 6240, which has a 19-inch monochrome raster monitor with 512 x 512 resolution;
- the WHIZZARD 6245, which has a 19-inch monochrome raster monitor with 1024 x 1024 resolution;

- the WHIZZARD 6250, which has a 13-inch color raster monitor with 512 x 512 resolution;
- and the WHIZZARD 6255, which has a 19-inch color raster monitor with 1024 x 1024 resolution.

All of these terminals are designed to provide many of the same high technology features found in the larger WHIZZARD 7250 system, but in smaller configurations and at less than half the cost. Each of the workstations packages the monitor with a keyboard and control joystick in a desk style cabinet and options include a data tablet, additional display list memory and a hard copy output device. All models are interfaced to virtually any host computer via standard RS-232 interfacing and offer data transfer rates from 110 to 9600 baud.

All four of the 6200 family members incorporate the same graphics processor and high speed digital vector generator as the larger 7250 system. This power makes these workstations very "friendly" to the user, providing a wide range of

See 6200, Page 2

UTi, Megatek Sign Accord On Acquisition

KANSAS CITY, MO — The signing of an agreement in principal for the acquisition of Megatek Corporation by United Telecommunications, Inc. was announced jointly on April 30 by Paul H. Henson, Chairman of United Telecom, and Robert D. Smith, President of Megatek.

Megatek, headquartered in San Diego, CA, designs and assembles computer graphic display terminals and produces software utilized in linking graphic display terminals with remote computer systems.

The acquisition, in which United Telecom would exchange some 1.3 million shares of its common stock for approximately 1 million shares of Megatek common shares are subject to the execution of a definitive agreement and to approval of Megatek's shareholders, Henson said.

It is contemplated that Megatek would be operated as a part of United Telecom's Computer Group, Henson added. He described Megatek, which had sales of \$12.5 million in 1980, as a "good fit" with the computer group. He said Megatek's hardware and software products add essential elements to the company's remote computing strategies for developing "enhanced computer solution" products and services.

Megatek To Exhibit At SIGGRAPH'81

DALLAS — Megatek will exhibit its entire line of computer graphics hardware and software products in Booth #607 at the SIGGRAPH'81 Show to be held August 3-7 at the Dallas Convention Center.

The product display will include all members of the new WHIZZARD 6200 family of graphics workstations, the WHIZZARD 7200
See SIGGRAPH, Page 2

New Plant Added

SAN DIEGO, CA — Megatek has announced that it will lease an additional 60,000 square feet of factory space this summer in a building adjacent to its current headquarters facility.

The additional space is required to accommodate the company's mushrooming growth, according to

See Plant, Page 2

6200 Family Grows To Four

continued from page 1

capabilities for meeting diverse graphics needs. For example, a number of interactive devices may be used to provide flexibility in data input to the terminals. Fifteen programmable function keys are integrated in the alphanumeric keyboard so that multiple commands may be executed with a single keystroke. The standard joystick control and the optional data tablet permit random movement of the cursor for more high speed interaction with pictorial elements.

Segments of a drawing may also be given attributes. Eight colors are provided and any lines may be dashed or blinking to call attention to certain attributes. These attributes can be changed easily and quickly.

Displays may be structured more easily because of the power of the 6200 family members. Objects may be defined as subroutines and up to four subroutines may be nested. One subroutine can call another subroutine locally. The advantage to the user is that less information has to be transmitted between the terminal and the host computer and less display memory is used.

Users also can employ the power of these terminals to provide greater graphic manipulation. The binary segment scaling capability lets the user scale objects up and down by a factor of eight from 512 x 512 to 1024 x 1024, 2048 x 2048 and 4096 x 4096. This virtual vector space allows users to scale all or part of a picture and pan continuously around the screen. Any display subroutine may also be attached to the cursor so that any graphic element can be moved around the screen totally independently of the host computer. Each 6200 uses the WAND 6200 software package to provide a high level of intelligence for reducing communications with the host computer. All programs written for the 6200 family are compatible with programs written for other Megatek graphic systems because WAND 6200 is a subset of the WAND 7200 software system.



Plant Size Tops 100,000 Feet

continued from page 1

Peter J. Shaw, vice president. "The addition of new product lines and the burgeoning market for computer graphics has put considerable pressure on us to expand our physical plant," Shaw said. "The acquisition of prime space nearby greatly enhances our ability to respond to market demands."

The new facilities will permit expansion of all departments of the company, Shaw noted, with manufacturing and engineering operations being the greatest benefactors. In addition, the company will be able to expand its

customer service and training facilities to accommodate future growth in business.

Megatek expects to move into the new space during the summer, dependent upon current tenants vacating and completion of leasehold improvements. The new space more than doubles the company's physical plant size to a total of 101,400 square feet.

Megatek more than doubled its graphics business from 1979 to 1980. The company employs more than 200 people and significant staff expansion is projected for 1981, Shaw added.

SIGGRAPH Features Megatek Session

continued from page 1

family of stroke and raster refresh systems and the Template™ software package.

As one of the 38 technical sessions planned for the three days from August 5-7, Dr. Richard Puk, Megatek director of software development, will chair a session on graphic software and languages. This session will be held from 1:30 to 2:30 p.m. on Thursday, August 6.

This year's SIGGRAPH show, will also offer attendees a choice of 18 one and two-day courses on subjects ranging from an introduction to graphics to animation, CAD/CAM systems, solid modeling, business graphics and advanced image synthesis.

The product exhibits of 103 companies will be open for viewing from 12 noon to 6 p.m. on August 4 and from 9 a.m. to 6 p.m. on August 5-6.

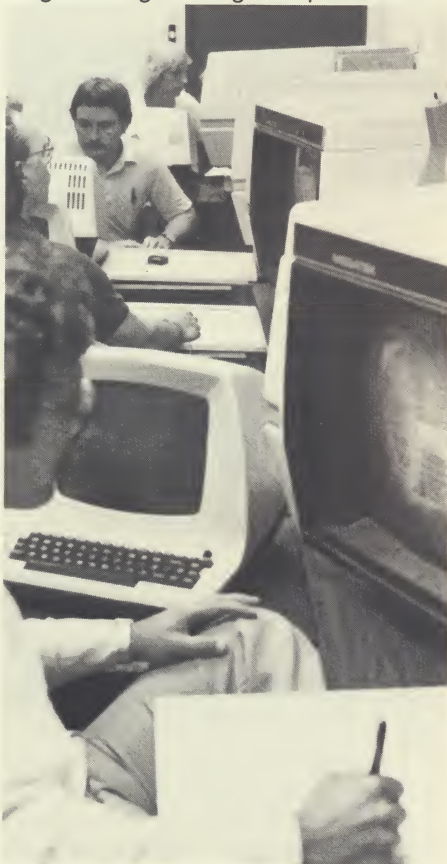
Trade Show List Grows

Megatek has expanded the list of trade shows at which the company will display its broad line of computer graphics products, systems and software. The new list of trade shows for 1981 includes:

- SIGGRAPH'81, Dallas, August 3-7;
- Eurographics, Darmstadt, W. Germany, September 9 - 11;
- Offshore Europe, Aberdeen, Scotland, September 15-18;
- HET Instrument, Amsterdam, The Netherlands, September 23-October 2;
- Society for Exploration Geophysicists, Los Angeles, October 11-15;
- Systems, Munich, W. Germany, October 19-23;
- Computer Graphics'81, London, October 27-29;
- Elkom'81, Helsinki, Finland, November 3-6;
- Autofact III West, Detroit, November 10-12.



Industrial Designer John Moore coordinates the human factor engineering of Megatek products.

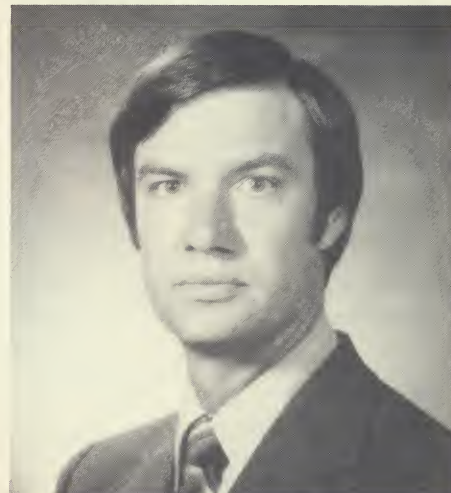


Megatek designers develop product circuitry using in-house graphics systems.

Megatek Engineering Graphics Used To Create Graphics

The Engineering Department at Megatek makes extensive use of computers and computer graphics systems in all phases of the engineering function — from design and drafting through project, test and continuation engineering.

Megatek engineers use a central VAX 11/780 computer for much of their computational work. Four of Megatek's own WHIZZARD 7210 graphics workstations are interfaced to the VAX for use in design of product circuitry. Microcode and proprietary firmware which "shapes" much of the function in these sophisticated graphics systems is developed on a network of computers which includes general purpose machines as well as dedicated development stations.



Dr. Gary Stowell, Director of Engineering.



Senior Engineer Jeff Ponsor checks out a completed Graphics Engine for a WHIZZARD workstation using a custom computer-based test fixture.



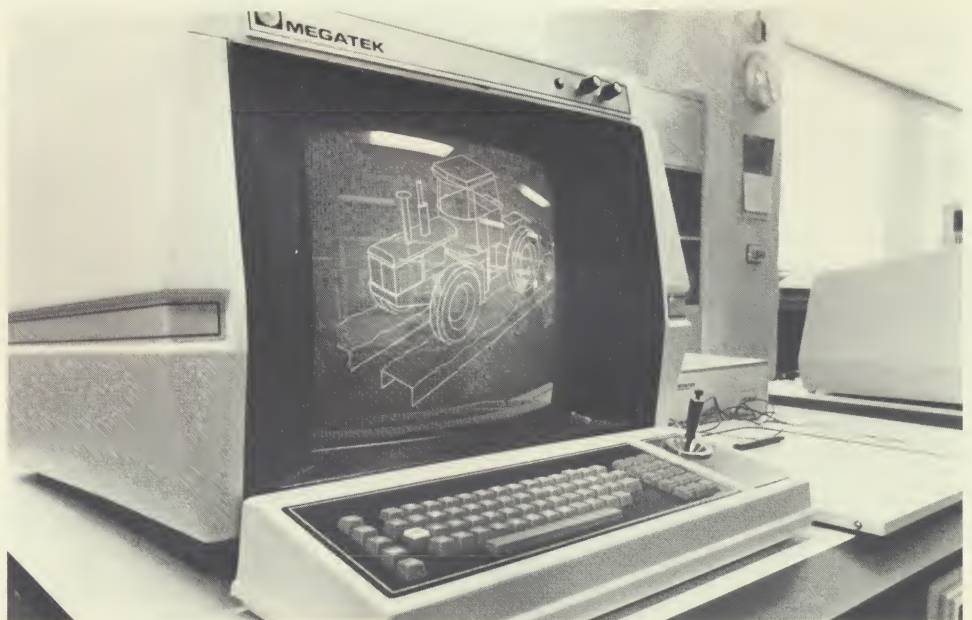
The drafting group produces drawings which will be used in the manufacture of WHIZZARD product families.

WHIZZARD Used For Dynamic Simulation

MOLINE, IL—Deere & Company engineers have added a dynamic animation capability to the computer graphics system used at the Technical Center here for mathematical analysis and simulation studies of agricultural and other equipment.

The addition of the vector refresh graphic system permits them to study the dynamic behavior of such equipment in a direct manner rather than via filmed animation of storage tube displays. One terminal being used is a WHIZZARD vector refresh terminal which has been interfaced to a Prime 400 timesharing system.

Deere engineers have simulated the dynamic behavior of farm implements and other heavy equipment for several years. Each system is modeled as rigid body elements interconnected with discrete elastic and damping elements. Computer simulations of the dynamic behavior are then



A dynamic tractor simulation at Deere & Company.

processed by forcing the model with specific external forces and/or displacements.

About six years ago the Technical Center staff began development of a software package to draw 3-D representations of objects to display the results of the computer simulations on storage tube graphic terminals. The displays are composed of straight line segments, curves, ruled surfaces and irregularly bounded planes which can contain holes—much like engineering drawings but without all the nuts-and-bolts detail. Drawings can be viewed from any direction with hidden lines automatically removed for clarity.

Since storage tube displays must be redrawn every time an element is changed in the picture, animation is difficult. The approach used initially at Deere involved filming the storage displays to produce the animation. A motion picture camera was set up in front of the display and wired for control by the computer. The system would draw one frame of the simulation on the video screen and trigger the camera to take one or more frames. Then it would advance the film, draw the next picture on the screen and expose it. At best, the filming of a tractor dynamics sequence might take anywhere from three to four hours to complete—not counting processing and production time.

The addition of a vector refresh terminal now reduces the time between the simulation run and an

animated display dramatically. A vector refresh terminal has a dynamic line drawing capability to generate animated sequences the engineers can watch “live”. The vector refresh graphics display can be redrawn continuously from new data at specific time intervals of the simulation to provide animation.

Glossary of Terms

Megatek has published a new glossary of computer graphics terms, intended for use as a reference tool by both novice and sophisticated computer graphics users.

The 40-page booklet is available to the general public by writing to the Marketing Department, Megatek Corporation, 3931 Sorrento Valley Blvd., San Diego, CA 92121.

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Want More Info?

If you'd like more information about Megatek Corporation or any of its products, systems or services, simply write to:

Susan Hartwig-Hood
Manager of Marketing
Communications
Megatek Corporation
3931 Sorrento Valley Blvd.
San Diego, CA 92121

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Megatek Line Is Broadest

The Megatek family of computer graphics products is the broadest and most capable available from a single manufacturer. It now includes:

WHIZZARD 7200 Family:

- WHIZZARD 7210 — vector refresh line drawing system
- WHIZZARD 7250 — color raster line drawing system
- WHIZZARD 7290 — vector and raster in one system
- WAND 7200 — powerful FORTRAN graphics software

WHIZZARD 6200 Family:

- WHIZZARD 6240 — a 512x512 B&W raster line drawing workstation
- WHIZZARD 6245 — 1024x1024 B&W raster line drawing workstation
- WHIZZARD 6250 — 512x512 color raster line drawing workstation
- WHIZZARD 6255 — 1024x1024 color raster line drawing workstation
- WAND 6200 — powerful FORTRAN graphics software

TEMPLATE:

A powerful FORTRAN software system that provides the capability to develop graphics application programming with complete computer- and device-independence.